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**PG (CBCS)**  
**M.Sc. Semester-III Examination, 2022**  
**MEDICAL LABORATORY TECHNOLOGY**  
 PAPER: MLT 303C  
**(HAEMOGLOBINOPATHIES -I)**

**Full Marks: 40****Time: 2 Hours****GROUP-A****Answer any FOUR questions:****4×2=8**

1. What is ring sideroblast?
2. What is target cell?
3. State the clinical significance of Hinz body.
4. Mention the cause with example of armocytic normochromic anemia.
5. What is sulfhemoglobin?
6. What is blue baby syndrome?
7. What is Schilling test?
8. Name the techniques of hemoglobin variant detection.

**GROUP-B****Answer any FOUR questions:****4×4=16**

9. Write a short note on Sideroblastic Anemia.
10. Write the differences between Thalassaemia β Major and Minor?
11. Mention the risk factors of different types of polycythemia.
12. What are the underlying causes of an aplastic anemia?
13. Explain the aetiological types with the causative factors of megaloblastic anaemia?
14. How is iron cycle functioned in our body?
15. Describe the structure of hemoglobin.
16. Write down the diagnostic technique of G6PD deficiency anaemia.

**GROUP-C****Answer any TWO questions:****2×8=16**

17. Briefly classify anemia on the morphological and etiological basis (4+4)
18. Discuss the significance of osmotic fragility test with diagrammatic representation.  
Describe the secondary, tertiary and quaternary structure of haemoglobin. (3+5)
19. Explain the role and mechanism of absorption, fate and transport of iron in our body. (3+5)
20. Describe the mechanism of sickling of R.B.C. containing HbS along with its pathophysiology and treatment of sickle cell crisis. (3+4+1)

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